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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,824	12/02/2003	Masao Fukami	245618UD-3CONT	2726
22850	7590	10/17/2006		
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER LOPEZ, CARLOS N				
ART UNIT		PAPER NUMBER		
1731				

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,824

Applicant(s)

FUKAMI ET AL.

Examiner

Carlos Lopez

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 11, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4 IDS's</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Claims 3, 5 and 7 are objected to because of the following informalities: In claims 3 and 7, the phrase "from upward" is grammatically incorrect. Should it be "from above"? Additionally, claim 5 lacks a period. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "the frame units" lacks antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10, 12, and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by McMaster et al (U 5,004,491). McMaster discloses a method of bending a glass sheet. The method comprises of preliminary bending the glass sheet with a unit 48 (See col. 9, lines 15ff) and then pressing the preliminary bended sheet with an upper mold 52. The glass sheet is heated to a forming temperature, to form the claimed

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heated and softened glass, (See Col. 6, lines 20ff) by conveying it through a furnace 32 using an air-floating means (See Col.2, lines 50ff). The claimed step of using means to control the amount of preliminary bending of the glass sheet is deemed as the molding surface of unit 48, which restricts the degree by which the glass sheet is bent. Hence, the selection of molding surface of unit 48 is deemed as the claimed controlling of the preliminary bending of the glass sheet.

In regards to claim 2, the claimed step of dropping the heated and softened glass sheet onto frame unit 48 is performed by element 44 shown in figure 5. The claimed conveying is show in figure 1 showing unit 48 transferring the glass sheet to a position below the upper mold 52. Finally, the claimed limitation of preliminary bending the glass sheet approximate to the shape of the upper mold, it is noted that the molding surface of unit 48 for which the glass sheet is placed and conforms to is approximate to the molding surface of the upper mold.

As for claim 3, the claimed sticking means is element 44 which sticks and holds the glass sheet to move it to a position above the unit 48.

As for claims 4 and 8, the claimed plural kinds of controlling means to control preliminary bending is deemed as the temperature to which the glass sheet is heated to thus effect the degree of which the glass is bent and the surface profile of the unit 48 holding the glass sheet which determines the shape the glass sheet takes.

As for claim 5-6, the apparatus as claimed is described above.

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As for claim 7, the claimed positioning and sticking means is deemed as element 44 positioning the glass sheet onto unit 48 and sticking means because it lifts the glass through a suction means.

As for claim 9, the mold surface of unit 48 have holes to provide suction as claimed, see figure 8 showing molding surface 50 comprising holes to provide the claimed suction means.

As for claim 10 and 12, the claimed heater is deemed as the furnace 32, which heats the glass wherein the instant case the "desired portion" is the whole glass.

As for claim 15, the furnace 32 opening into forming station 34 comprising the upper mold and frame unit provides heat into station 34, hence it is deemed that the upper mold and frame unit along with its bending control means, the mold surface 50 being within a heated chamber due furnace 32 opening into it are within a furnace.

As for claim 16, figure 6 shows at least two holes in upper mold 52.

Allowable Subject Matter

Claims 11 and 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the cited prior art fails to disclose or reasonably suggest an apparatus for bending glass sheet comprising a means for controlling preliminary bending of a glass having a sticking means with a heater incorporated therein as recited in claim 11 or a frame unit comprising a fix and pivoted frames as recited in claims 13-14.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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